

Very Large and Very Small Numbers

This assignment is to find some very large and very small numbers that come up in day-to-day life. We will write these numbers in expanded form and scientific notation. Hopefully, we will discover when scientific notation is most useful.

Using an internet search engine (such as Google) or some other source of information, look up the following values. Give both the expanded form and the scientific notation form.

Quantity	Expanded Form	Scientific Notation Form
Number of people on Earth		
2008 Iraq GDP		
2008 US Defence Budget		
Atomic Mass Unit		
Avogadro's Number		
Width of human hair (inches)		
Speed of light (feet/sec)		
Mass of a dust particle (lbs)		

Why do you think people came up with scientific notation?

In what cases do you find it useful?

Extra Credit: Friday morning NPR had a story about the size of next year's federal deficit (<http://www.npr.org/templates/story/story.php?storyId=102154571>). They state that it could hit 2 trillion dollars. On the first day of class, we discussed how although one million seconds ago was only about a week and a half ago, a billion seconds was over thirty years ago. Give a similar example for someone to make sense of the number 2 trillion (some ideas- use time like we did for million/billion, use the height of a stack of 100 dollar bills, etc.).